

L 22102-66 EWT(d)/T/EWP(1) IJP(c)
ACC NR: AP6012664

SOURCE CODE: UR/0031/65/000/011/0035/0039

AUTHOR: Zherebyat'yev, I.F. (Candidate of physical and mathematical sciences); Luk'-yanov, A.T. (Candidate of physical and mathematical sciences); Molyukov, I.D. (Candidate of physical and mathematical sciences); Pustyl'nikov, L.M.

45

B

ORG: none

TITLE: Numerical solution of some problems in mechanics and physics on analog computers

SOURCE: AN KazSSR. Vestnik, no. 11, 1965, 35-39

TOPIC TAGS: mathematic conference, data processing conference, analog computer, computer circuit, approximation, differential equation

ABSTRACT: This article is an abridgment of a paper given at the Second All-Union Conference on Computer Mathematics, 22-26 January 1965 in Moscow. The authors propose a method of static (discrete) modeling based on using an electric circuit for reproducing a finite difference approximation of the initial differential equations. As an example of application of the method, a non-stationary equation of thermal conductivity with phase transitions (melting, evaporation) is considered, taking the temperature relationship of the thermophysical properties of the material into account. The equations and electric circuit are given. Solution of an equation for non-stationary diffusion of a gas in a liquid in the presence of a chemical reaction of fractional order is considered as well as an example of solving hyperbolic equations. Orig. art. Card 1/2

L 22102-66

ACC NR: AP6012664

has: 3 figures and 15 formulas. [JPRS]

SUB CODE: 09, 12 / SUMB DATE: none / ORIG REF: 005 / OTH REF: 001

Card 2/2 BLG

I. 9667-66 EPT(d)/EWP(1) LIP(c) BB/GG
ACC NR: AP5026537 SOURCE CODE: UR/0286/65/000/019/0080/0080

AUTHOR: Luk'yanov, A. T.

ORG: none

TITLE: A static electric integrator. Class 42, No. 175260

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 80

TOPIC TAGS: integrating network, differential analyzer, differential equation, nonlinear differential equation, partial differential equation

ABSTRACT: This Author Certificate presents a static electric integrator consisting of linear potentiometers, a decision element, a measuring unit, and a switching panel. The integrator is designed to provide the possibility of solving multi-dimensional nonlinear differential equations in partial derivatives. The integrator contains discrete functional potentiometers, the number of which is equal to the number of coefficients of the equation. The take-offs of the integrator are on the common switching panel with spatially integrated jacks.

SUB CODE: 09/

SUBM DATE: 01Mar63

Card 1/1

UDC: 681.14.001.572

PUSTYL'NIKOV, L.M.; LUK'YANOV, A.T.; FASMAN, A.B.; IKHSANOV, Zh.;
SOKOL'SKIY, D.V.

Measurement of the gradient of hydrogen concentration in a
solution in the homogeneous catalytic reduction of Cr₂O₇²⁻ anion
in the presence of Cu(II). Zhur.fiz.khim. 39 no.10:2530-2535 0
'65. (MIRA 18:12)

1. Kazakhskiy gosudarstvennyy universitet imeni Kirova.
Submitted September 2, 1964.

LUK'YANOV, A.T.; PUSTYL'NIKOV, L.M.; SHAVROV, A.A.

Numerical solution of the problems of chemical kinetics by means
of static electron integrators. Dokl. AN SSSR 166 no.3:651-653
Ja '66. (MIRA 19:1)

1. Kazakhskiy gosudarstvennyy universitet im. S.M.Kirova.
Submitted April 17, 1965.

L 40875-66 EWT(1) W

ACC NR: AR6014923

SOURCE CODE: UR/0124/65/000/011/B086/B086

12
B

AUTHORS: Zherebyat'yev, I. F.; Luk'yanov, A. T.

TITLE: Problems of nonstationary thermal conduction with moving boundaries

SOURCE: Ref. zh. Mekhanika, Abs. 11B604

REF SOURCE: Sb. tr. soiskateley i aspirantov. M-vo vyssh. i sredn. spets. obrazovaniya KazSSR, v. 1, no. 2, 1963 (1964), 171-183

TOPIC TAGS: thermal conduction, phase transition, temperature simulation, temperature dependence

ABSTRACT: The problem of calculating the temperature field and the location of the phase boundary as functions of time in an infinite sheet with a given fixed or variable thermal flux is considered. The conditions are described for simulation on static electronic integrators with which the explicit finite-difference approximation to the differential equation is reproduced. The solution is produced discretely by successive displacements of the same computer unit along the mesh points of the investigated region. Solutions are obtained both under the assumption of constant thermophysical coefficients in each of the phases as well as consideration of their temperature dependence. A calculation of the solidification rate of a semi-infinite body initially at the melting point is presented. An analysis of the calculated results in the form of the temperature dependence of the coefficients is given.

Bibliography of 13 citations. Translation of abstract
Card 1/1 SUB CODE: 20 11b

ACC NR: AT7001743

SOURCE CODE: UR/0000/66/000/000/0160/0168

AUTHORS: Zherbyat'yev, I. F.; Luk'yanov, A. T.

ORG: none

TITLE: Modeling various difference approximations of the linear equation of thermal conductivity

SOURCE: AN KazSSR. Institut matematiki i mekhaniki. Uravneniya matematicheskoy fiziki i funktsional'nyy analiz (Equations of mathematical physics and functional analysis). Alma-Ata, Izd-vo Nauka KazSSR, 1966, 160-168

TOPIC TAGS: linear equation, analog system, approximation method, difference method, thermal conduction

ABSTRACT: Analog formation, using a static electric integrator, is investigated for various explicit finite difference circuits which approximate equations of the thermal conductivity type. The method overcomes one of the defects of the difference scheme

$$U_{n,k+1} - U_{n,k} = \frac{a\Delta t}{\Delta x^2} (U_{n-1,k} - 2U_{n,k} + U_{n+1,k}), \quad (1)$$

which is associated with the stability in the time interval Δt and the coordinate interval Δx . With the unsteady problem (small thermal fluxes and temperature gradients, etc) a large number of time steps is necessary. These can be reduced by selecting the proper difference scheme. If $U_{n,k}$ in (1) is replaced by the average

Card 1/2

ACC NR: AT7001743

$U(x, t)$ at the points $(n, k-1)$ and $(n, k+1)$ and the time derivative has the form

$$\frac{\partial U(x, t)}{\partial t} \approx \frac{U_{n, k+1} - U_{n, k-1}}{2\Delta t}, \quad (2)$$

the difference equation is

$$U_{n, k+1} = \frac{U_{n-1, k} + (M-1) U_{n, k-1} + U_{n+1, k}}{M+1}, \quad (3)$$

where $\frac{2\Delta t}{\Delta x^2} = \frac{1}{M}$. The error in (3) is of the order

$$\frac{\Delta x^2}{12} \frac{\partial^4 U}{\partial x^4} \left(1 - \frac{12}{M^2}\right) + (\Delta t^2 + \Delta x^4). \quad (4)$$

The calculation can be conducted knowing the value of the function for two layers $k \Delta t$ and $(k-1) \Delta t$. Using the scheme proposed by Frankel and Dufort (which is stable for $M > 0$) the time step can be selected in broad limits with a fixed coordinate step. First, cylindrical symmetry is considered. In one case, to reduce the errors, W. R. Mann and W. P. Timlake (An optimum explicit recurrence formula for the diffusion equation. Journal Elisha Metchell Scient. Soc., 1957, No. 2, pp. 254-257) introduced additional terms and used a two-layer scheme. By expressing $\Delta_x^2 U_{n, k}$ according to the scheme proposed by Dufort-Frankel, and by representing $\Delta_x^2 U_{n, k-1}$ as usual, a three-layer scheme is arrived at, which has 25% fewer calculation operations than the first proposal. The use of the ordinary formula for $\Delta_x^2 U_{n, k}$ and of the Dufort formula for $\Delta_x^2 U_{n, k-1}$ leads to a three-layer scheme with 19% fewer operations. Nonsymmetrical heat flows are also considered. Orig. art. has: 3 figures and 32 formulas.

Card 2/2 SUE CODE: 12, 20/ SUBM DATE: 22Jun66/ ORIG REF: 007/ OTH REF: 001

3 (5)

SOV/11-59-4-9/16

AUTHOR: Luk'yanov, A. V.

TITLE: Plastic Deformations of Limestones in Shatter Zones
Accompanying Large Breaks (Plasticheskiye deformatsii
izvestnyakov v zonakh drobleniya, soprovozhdayushchikh
krupnyye razlomy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959,
Nr 4, pp 102 - 106 (USSR)

ABSTRACT: The conglomerates found in shatter zones of large breaks
were deformed when submitted to huge pressure. In comparing
limestone pebbles from similar conglomerates, but situated
outside the shatter zones, with those submitted to the
pressure, the author comes to the conclusion that in certain
chemical and temperature conditions characteristic for a
given zone, plastic deformations occurred in the limestones.
There are 4 sets of photos.

Card 1/2

SOV/11-59-4-9/16
Plastic Deformations of Limestones in Shatter Zones Accompanying
Large Breaks.

ASSOCIATION: Geologicheskiy institut AN SSSR (The Geological Institute
of the AS USSR) Moscow

SUMBITTED: August 6, 1959.

Card 2/2

LUK'YANOV, A.V.; SHCHERBA, I.G.

Overthrust in the region of Kenebek-Zhondytai Mountains in central
Kazakhstan. Izv. AN SSSR. Ser.geol. 26 no.8:105-109 Ag '61.
(MIRA 14:9)

1. Geologicheskiy institut AN SSSR, Moskva.
(Kazakhstan--Faults (Geology))

LUK'YANOV, A.V.

Mechanism of the formation of the late Paleozoic structure in the
Atasu-Zhamshi interfluve (central Kazakhstan). Dokl. AN SSSR
141 no.5:1187-1190 D '61. (MIRA 14:12)

1. Geologicheskiy institut AN SSSR. Predstavлено akademikom

A.L. Yanshinym.

(Atasu Valley—Geology, Structural)

(~~Atasu Valley~~—Geology, Structural)

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Water vapor pressure in the system water - glycerol at 25 C.
Izv.AN SSSR.Otd.khim.nauk no.8:1479-1481 Ag '62. (MIRA 15:8)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Glycerol) (Water vapor)

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Study of ternary solutions by the isopiestic method. Part 1.
Zhur. fiz. khim. 37 no.12:2773-2775 D '63. (MIRA 17:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

BURTMAN, V.S.; LUK'YANOV, A.V.; FRYVE, A.V.; RUZHENTSEV, S.V.

Horizontal displacements along faults and certain methods
of studying them. Trudy GIN no.20:5-33 '63.
(MIRA 17:6)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6

UNK'YASOV, A.V.

Horizontal movements along faults during recent catastrophic
earthquakes. Trudy GIN no.80:34-112 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6"

LUK'YANOV, A. V.

Luk'yanov, A. V. On electrolytic modelling of three-dimensional problems. Doklady Akad. Nauk SSSR (N.S.) 75, 613-615 (1950). (Russian)

The equation $\operatorname{div} [k(x, y, z) \cdot \operatorname{grad} u] = 0$ is physically realized for $k(x, y, z) = \lambda_1$ in T_1 and $k(x, y, z) = \lambda_2$ in T_2 with $\lambda_1 du_1/dn = \lambda_2 du_2/dn$ on the boundary between T_1 and T_2 by immersing an agar prepared electrolyte having the shape of the domain T_2 and conductivity λ_2 in a potassium chloride solution of conductivity λ_1 contained in a vessel having the shape of T_1 . Diffusion is supposed to have ceased before the potential distribution corresponding to the boundary conditions is applied. This is found to impose the limits $1 < \lambda_1/\lambda_2 < 30$. For the case of a sphere placed between two widely separated parallel plates of different potentials two plane sections with the equipotential surfaces are shown; experimental determination and calculated values are in close agreement.

R. Church (Monterey, Calif.)

Source: Mathematical Reviews,

Vol 13 No. 2

8/11/67
X2

LUK'YANOV, A.V.
Luk'yanov, A.V.

"Modeling of Alternating Electromagnetic Fields (for Geophysical Prospecting)." Cand Phys-Math-Sci, Moscow Order of Lenin State U., imeni N.V. Lozenesov, 20 January 1954. (Vn.- Vechernyaya Moskva, 8 January 1954).

SO: SUA 168, 22 July 1954

LJK'YANOV, A.V.

Studies of variable electromagnetic fields with models. Izv.AN
SSSR.Ser.geofiz. no.8:948-957 Ag '56. (MLRA 10:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Magnetic fields--Electromechanical analogies)

LUKYANOV, A. V., ORLOV, Y. V., TIKHONOV, A. N., TUROVTSEV, V. V. and SHAPIRO, I. S.

"Le Models Optique pour l'interaction avec les noyaux des neutrons d'energie moyenne."

report presented at the Intl. COngress for Nuclear Interactions (Low Energy) and Nuclear Structure (Intl. Union and Applied Physics) Paris, 7-12 July 1958.

LUKYANOV, A. V., ORLOV, Yu. V. and TUROVTSEV, V. V.
Moscow State University, U.S.S.R.

"Optical Model of the Interaction Between Intermediate Energy Neutrons and Nuclei." Nuclear Physics, v. 8, pp. 325-337 (1958) (North-Holland Publishing Co., Amsterdam) No. 3.

Abstract: An optical model of the Nucleus is investigated in which a complex potential with a tail expressed by a third degree polynomial is employed. Parameters of the model which give the best fit between the theoretical cross sections σ_t and σ_c the experimental values for 14 MeV neutrons have been determined. The agreement is quite satisfactory for nuclei heavier than the chromium nucleus. The elastic scattering neutron angular distributions computed with aid of these parameters also satisfactorily agree with experiment. A preliminary investigation at lower energies indicated that in a relatively broad range the parameters depend only weakly on the energy.

24(5)

SOV/56-35-3-28/61

AUTHORS: Luk'yanov, A. V., Orlov, Yu. V., Turovtsev, V. V.

TITLE: Optical Model for the Interaction Between Neutrons of Medium Energy and Nuclei (Opticheskaya model' dlya vzaimodeystviya neytronov srednikh energiy s yadrami)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 3, pp 750-756 (USSR)

ABSTRACT: In their introduction the authors discuss several papers dealing with model representations of the interaction between nucleons and nuclei, which have already been published (Feshbach (Feshbakh), Porter, Weisskopf (Vayskopf), (Ref 1): neutron-nucleus interaction, square well potential; Nemirovskiy (Ref 4): low energy neutrons, optical model; Beyster, Walt (Wolt), Salmi (Selmi) (Ref 5) investigated interactions at various energies up to 14 MeV. In the present paper an optical nuclear model is investigated in which the nucleus is described by a complex potential; this potential has a tail of the shape of a polynomial of the third degree.
$$U(r) = V(r) + iW(r) = - U_0 (1 + i\zeta) f(r) \text{ with}$$

Card 1/3

SOV/56-35-3-28/61

Optical Model for the Interaction Between Neutrons of Medium Energy and Nuclei

$$f(r) = \begin{cases} 1 & r \leq R-d \\ 1 + (r-R-2d)(r-R+d)^2/4d^3 & R-d \leq r \leq R+d \\ 0 & r \geq R+d \end{cases}$$

(cf. also figure 1). Like in the case of the experimental works (Refs 6-9) 14 MeV neutrons are investigated. In the present case it was possible to select the parameters of the model in such a manner that good agreement was obtained between the theoretically calculated cross sections σ_t , σ_r , σ_s with those

found by experiment (in this connection cf. figures 4, 5, $\sigma(A^{1/3})$ diagrams, comparison between the σ -values calculated by the authors and those measured by other research scientists (Ref 6-9)). It was found that agreement is good in the case of nuclei that are heavier than chromium. Also the angular distribution of elastically scattered neutrons, calculated on the basis of the aforementioned parameters, agrees well with measured values (compare figure 6: Diagram, differential cross sections in barn/steradian with respect to scattering angles for Bi, Cd, Ca, and Mg for 14,6 MeV neutrons; calculated curves are compared with experimental data from reference 11). For the

Card 2/3

SOV/56-35-3-28/61

Optical Model for the Interaction Between Neutrons of Medium Energy and Nuclei

range of lower energies the parameters found by the authors were found to be only to a small extent dependent on energy within a comparatively wide interval. In conclusion the authors thank Professor I. S. Shapiro for his interest in the work, and Professor A. N. Tikhonov, who supervised calculations, and G. A. Samoylova for her valuable help in evaluating results. There are 6 figures and 11 references, 2 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki pri MGU
(Scientific Research Institute for Nuclear Physics of Moscow State University)

SUBMITTED: April 11, 1958

Card 3/3

LUK'YANOV, A.V.; TEPLOV, I.B.; AKIMOVA, M.K.; DITKIN, V.A., prof., otv. red.;
KORKINA, A.I., tekhn. red.

[Tables of Coulomb wave functions (Whittaker functions)] Tablitsy
volnovykh kulonovskikh funktsii (funktsii Uittekera). Moskva,
Vychislitel'nyi tsentr AN SSSR, 1961. 22p p. (MIR 14:7)
(Coulomb functions—Tables, etc.)

KIR'yELOV, A.V.; LUK'YANOV, A.V.

Lower limit of miscibility in eocrystallization processes.
Izv. Sib. otd. Akad. SSSR no.9:65-77 '61. (MIRA 14:10)

I. Institut neorganicheskoy khimii Sibirskogo otdeleniya
Akad. SSSR, Novosibirsk.
(Crystallization)

LUK'YANOV, A.V.

Extending Boltzmann's collision integral to inelastic collisions
and reactions. Vest. Mosk. un. Ser. 3: Fiz., astron. 16 no.6:
20-24 N-D '61. (MIRA 14:12)

1. Kafedra matematiki Moskovskogo universiteta.
(Collisions (Nuclear physics))
(Nuclear reactions)

LUK'YANOV, A.V.; ORLOV, Yu.V.; TUROVTSEV, V.V.

Optical nuclear model with a polynomial potential. Zhur. eksp.
i teor. fiz. 41 no.5:1634-1643 N '61. (MIRA 14:12)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

(Nuclear optical models)
(Potential, Theory of)

BALAKINA, L.M.; BULMASOV, A.P.; DUVZHIR, G.; YESKIN, A.S.; KURUSHIN, R.A.; LOGACHEV, N.A.; LUK'YANOV, A.V.; NATSAG-YUM, L.; SOLONENKO, V.P., prof.; TRESKOV, A.A.; FLORENTOV, N.A.; KHIL'KO, S.D.; SHMOTOV, A.P.; ARSEN'YEV, A.A., red. Izd-va; DOROKHINA, I.N., tekhn. red.

[Gobi Altai earthquake] Gobi-Altaiskoe zemletriiasenie. Moscow, Izd-va Akad. nauk SSSR, 1963. 390 p. (MIRA 16:5)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Vostochno-Sibirskiy geologicheskiy institut. 2. Chlen-korrespondent Akademii nauk SSSR (for Florensov).
(Gobi Altai--Earthquakes)

S/076/63/037/Q01/028/029
B101/B186

AUTHORS: Kirgintsev, A. N., Luk'yanov, A. V. (Novosibirsk)

TITLE: Vacuumless apparatus for the isopiestic determination of vapor pressures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 233 - 235

TEXT: A vacuumless variant of the vacuum apparatus suggested by R. A. Robinson, D. A. Sinclair (J. Amer. Chem. Soc., 56, 1830, 1934) for the isopiestic determination of vapor pressures is described. A glass cylinder of 140 mm diameter, 67 mm high, was sealed on top and bottom by duralumin disks of 10 mm thickness. Instead of by vacuum, the retardation of diffusion was eliminated by stirring of air with a magnetic mixer at 900 - 1000 rpm. The metal disk serving as bottom of the vessel has seats for 11 test cups, 24.5 mm in diameter, 10 mm high, made of glass, to hold the test solutions. The test cups are covered with polyethylene lids. The whole apparatus is placed in a double-walled plexiglass thermostat. The space between the walls is filled with air. The driving axle of the magnetic mixer projects through the thermostat. The water charge of the thermostat is mixed by a turbomixer. The drive and the heater are fed from a 6-v storage battery.

Card 1/2

S/076/63/037/001/028/029
B101/B186

Vacuumless apparatus for the...

The temperature in the thermostat is kept constant to within $\pm 0.01^{\circ}\text{C}$. The device has the advantage of needing no complicated vacuum apparatus. Further it provides for stirring of the solutions in the test cups and for round-the-clock checks. Tests showed that the concentration of a NaCl solution remained the same in all test cups after 48 hrs, i.e. the same temperature was maintained throughout the apparatus. An isopiestic determination of salt solutions takes 1 - 5 days. There are 4 figures.

ASSOCIATION: Akademiya nauk SSSR, Sibirskaia otdeleniye, Institut neorganicheskoy khimii (Academy of Sciences USSR, Siberian Department, Institute of Inorganic Chemistry)

SUBMITTED: February 14, 1962

Card 2/2

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Activity of alkali metal chlorides and ammonium chlorides
in an aqueous solution of sodium chloride. Dokl. AN SSSR
153 no.1:136-139 N '63. (MIRA 17:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya
AN SSSR. Predstavлено академиком V.I. Spitsynym.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Study of ternary solutions by the isopiestic method. Part 4.
Radiokhimiia 6 no.4:449-454 '64. (MIRA 18:4)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6"

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Study of ternary solutions by the isopiestic method. Part 3.
Zhur. fiz. khi., 38 no.6:1603-1606 Je '64.

(MIRA 18:3)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Isopiestic study of ternary solutions. Part 5. Zhur. fiz. khim. 39 no.3:
744-748 Mr '65. (MIRA 18;7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

LUK'YANOV, A.V.; LYUTIK, A.I.; SHVETS, V.I.; PREOBRAZHENSKIY, N.A.

Studies of the synthesis of lipoid compounds. Dokl. AN SSSR 165
no.1:121-124 N '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova. Submitted April 8, 1965.

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Study of ternary solutions by an isopiestic method. Part 6.
Zhur. fiz. khim. 39 no.5;1236-1239 My '65. (MIRA 18:8)

I. Institut neorganicheskoy khimii, Sibirskoye otdeleniye AN SSSR.

LUK'YANOV, A.V., inzh.

Formation of longitudinal unevenness on railheads during their
rolling. Trudy TSNII MTS N. 292e19-53 '65.

(MIRA 18:10)

KIRGINTSEV, A.N.; LUK'YANOV, A.V.

Inospiestic study of ternary solutions. Part 2. Zhur. fiz. khim.
38 no.5:1291-1292 My '64. (MIRA 18:12)

1. Institut neorganicheskoy khimii Sibirekogo otdeleniya AN
SSSR. Submitted May 19, 1963.

ACC NR: AP6030550

SOURCE CODE: UR/0413/66/000/016/0030/0030

INVENTOR: Luk'yanov, A. V.; Tolkachev, O. N.

ORG: none

TITLE: Preparation of an ortho ester of myoinositol. Class 12, No. 184841
[announced by Moscow Institute of Fine Chemical Technology im. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 30

TOPIC TAGS: myoinositol ortho ester preparation, biologically active compound,
myoinositol ortho formate, ~~toluenesulfonic acid catalyst~~, cyclic alcohol, cyclohexane,
isomer, toluene, acid catalyst, sulfonic acid, ester, myoinositol

ABSTRACT: To broaden the choice of starting materials for the preparation
of biologically active orthoesters of myoinositol, e.g., 1,2,5-ortho-
formate, myoinositol is heated with ethyl orthoformate in the presence
of p-toluenesulfonic acid as catalyst in toluene with subsequent
removal of the solvent and chromatographic isolation on alumina.
[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 16Jul65/

Card 1/1

UDC: 547.593.261

ACC NR: AM6014510

Monograph

UR/

Luk'yanov, A. V.

Structural effect of horizontal crustal movements (Strukturnyye proyavleniya gorizontal'nykh dvizheniy zemnoy kory) Moscow, Izd-vo "Nauka", 65. 0209 p. illus., biblio. Added t.p. in English. 1,600 copies printed.

Series note: Akademiya nauk SSSR. Geologicheskiy institut. Trudy, vyp. 136.

TOPIC TAGS: ~~geology~~, tectonics, earthquake, stratigraphy, EARTH CRUST

PURPOSE AND COVERAGE: This book views regularities of interarrangement of structures morphologically different but formed at the same time. First described is dislocation occurring during earthquakes. This study is based on earthquakes occurring in Mongolia and North America, and the relation is shown among determined dislocations and their connections with horizontal tectonic movements. Based on several geological structures located in seismic regions, a study is made of the duration of formation of large tectonic forms. The book discusses regularity of connections of structures with one another and their influence on the process of sedimentation. The last section deals with regularities of structure and of interarrangement of tectonic structures of Atasu-Zhamshi interfluvial and other regions of Central Kazakhstan.

TABLE OF CONTENTS (abridged):

Card 1/2

UDC:531.1(210)

ACC NR: AM6014510

Introduction--5

Ch. I. Horizontal movements along faults originating during recent catastrophic earthquakes—8

Ch. II. Structures originating during earthquakes and geological structures—96

Ch. III. Structures of the geological past—140

Bibliography—206

SUB CODE: 08 / SUBM DATE: 09Nov65/ ORIG REF: 063/ OTH REF: 091

Card 2/2

L 36558-66 EWT(l)/EWT(m)/T/EWP(t)/ETI IJP(c) AT/JD
ACC NR: AP6015765 (A,N)

SOURCE CODE: UR/0048/66/030/005/0781/0783

AUTHOR: Spivak, G. V.; Luk'yanov, A. Ye.

ORG: Physics Department, Moscow State University im. M. V. Lomonosov (Fizicheskiy fakultet Moskovskogo gosudarstvennogo universiteta)

TITLE: Observation of p-n junctions under pulsed conditions by means of an electron mirror microscope /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 781-783

TOPIC TAGS: electron microscope, stroboscope, silicon diode, junction diode

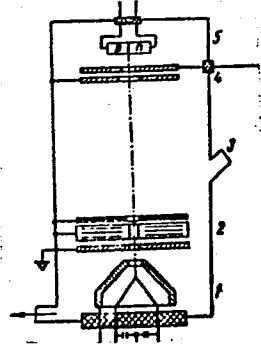
ABSTRACT: p-n junctions produced by diffusing aluminum to a depth of 100 microns into n-type silicon doped with phosphorus were observed under pulsed conditions with a stroboscopic electron mirror microscope. A diagram of the setup is shown in the figure. An 0.2 A/cm² forward bias was applied to the silicon diode and 3.5 V rectangular pulses of 2.2 microsec duration were applied in the backward direction. The electron gun of the microscope was normally blocked; it was unblocked by pulses of 0.1 microsec duration synchronized with the pulses on the diode in order to achieve a stroboscopic effect. The pulse frequency was 200 kHz. Photographs of the junction recorded at different stages of the back biasing process are presented. The junction is clearly

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L 36558-66

ACC NR: AP6015765

2



Stroboscopic electron mirror microscope. 1 - electron gun; 2 - anode, photographic plate, and fluorescent screen; 3 - observation port; 4 - immersion objective; 5 - specimen.

visible on the photographs recorded under back biased conditions but it is less easy to discern on the photographs recorded during the forward biased part of the cycle. When the potential drop across the diodo fell to zero at the end of the back bias pulse the junction was still clearly visible on the photograph, indicating a considerable forward potential drop at the junction on the surface of the crystal. It is concluded that the potential drop at the region where the p-n junction meets the surface of the crystal can be different under different conditions in which, however, the potential on the diode is the same. The authors thank A.P.Karatsyuba for providing the specimens and A.E.Yunovich for participating in discussions. Orig. art. has: 3 figures.

SUB CODE: 20/

SUBM DATE: 00/

ORIG REF: 004/

OTH REF: 001

Card 2/2 MLP

L 37119-66 EWT(1) IJP(c)

ACC NR: AP6015771

(A, N)

SOURCE CODE: UR/0048/66/030/005/0803/0807

AUTHOR: Spivak, G. V.; Luk'yanov, A. Ye.

ORG: Physics Department, Moscow State University im. M.V.Lomonosov (Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Observation and measurement of the alternating magnetic field of an acoustic recording head by means of an electron mirror microscope /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/ III

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 803-807

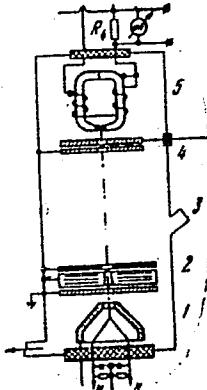
TOPIC TAGS: electron microscope, stroboscope, magnetic field, electron reflection, tape recorder

ABSTRACT: The alternating magnetic field in the gap of the recording head of a "Yauza-5" tape recorder was observed with the aid of a stroboscopic electron mirror microscope. With the aid of measurements of the type described in this paper it is possible to measure the frequency and resonance characteristics of recording heads. A diagram of the apparatus is given in the figure. Provision was made to excite the recording head with direct current as well as with alternating current at audio frequencies up to 30 kHz. A negative potential was applied to the recording head to assure reflection of the electron beam. The electron gun was biased beyond cutoff and the

Cord 1/2

L 37119-66

ACC NR: AP6015771



Stroboscopic electron mirror microscope. 1 - electron gun; 2 - anode, photographic plate, and fluorescent screen; 3 - observation port; 4 - immersion objective; 5 - object (recording head).

SUB CODE: 20/

SUEN DATE: 00/

ORIG REF: 004/

OTH REF: 003

Card. 2/2 *MT*

L 36561-66 EWT(1)/EWT(m)/T/EWP(t)/ETI
ACC NR: AP6015773 (A, N)

IJP(c) JD/HW

SOURCE CODE: UR/0048/66/030/005/0813/0816

AUTHOR: Spivak, G.V.; Pavlyuchenko, O.P.; Luk'yanov, A.Ye.

ORG: Physics Department, Moscow State University im. M.V.Lomonosov (Fizicheskiy fakultet Moskovskogo gosudarstvennogo universiteta)

TITLE: Imaging of magnetic microfields in an electron mirror microscope /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/ III

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 813-816

TOPIC TAGS: electron microscopy, electron reflection, magnetic domain structure, electric field, magnetic field

ABSTRACT: The imaging of ferromagnetic domain structures by means of an electron mirror/microscope has been investigated with magnetic plumbite and cobalt^{II} single crystals and with an artificial sample consisting of a stack of 0.1 mm thick ferromagnetic sheets separated by equally thick copper sheets. When the ferromagnetic sheets in the artificial sample were magnetized in alternate directions to represent Bloch walls the electron images of the edges of the sheets were wedge-shaped with alternate wedges opening in opposite directions. This is ascribed to a shift of the image due to the action of the magnetic field at the surface of the specimen on the imaging electrons, the shift being a linear function of distance from the optic axis. Analogous spike-

Card 1/2

L 36321-66 EWT(l)/EWT(m)/EWP(e)/EWP(t)/ETP TJP(c) GG/WH/JD

ACC NR: AP6015790

(A,N)

SOURCE CODE: UR/0048/66/030/005/0877/0880

AUTHOR: Luk'yanov, A. Ye; Spivak, G. V.; Mikhaylin, V. V.

ORG: Physics Department, Moscow State University im. M.V.Lomonosov (Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Cathode sputtering of dielectrics in a high frequency field /Report, Twelfth All-Union Conference on the Physical Bases of Cathode Electronics held in Leningrad 22-26 October 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 877-880

TOPIC TAGS: cathode sputtering, dielectric material, quartz, calcium compound, sulfide, HF, electric field

ABSTRACT: Thin films of quartz¹⁵ and calcium sulfide¹⁶ were obtained by cathode sputtering in a high frequency field. The sputtering took place in a glass tube containing neon or argon at a pressure of the order of 0.01 mm Hg, in which a 0.1 to 5 A hot cathode arc discharge was maintained. A 100 to 500 Oe longitudinal magnetic field was employed to stabilize the arc. An up to 3 kV alternating potential difference at a frequency between 2 and 12 MHz was applied between the holder of the sputtered dielectric and the substrate holder. Difficulties with parasitic oscillations and overheating of the sample, leading to undesired thermal deposition, were experienced when

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L 36321-66

ACC NR: APG015790

Attempts were made to achieve the greatest possible sputtering rate by increasing the high frequency field strength and the plasma density. Quartz films up to 6000 Å thick were sputtered from fused quartz wafers onto aluminum substrates at rates from 1 to 300 Å/min, using arc currents from 0.3 to 3 A in argon at 0.01 to 0.03 mm Hg and high frequency potentials (2.5 MHz) from 0.5 to 2 kV. The films were amorphous but contained small quartz crystals; their dielectric strengths were between 200 and 500 kV/cm and their loss tangents were less than 10^{-4} . The sputtered films were more transparent than thermally deposited films, and were not discolored by silicon monoxide. Polycrystalline CaS films up to 0.2 micron thick were sputtered from pressed wafers of powdered CaS. The absorption spectra of these films were complex, exhibiting a number of peaks. A peak at a photon energy of 5.4 eV with an absorption coefficient of the order of 10^5 cm^{-1} is ascribed to the fundamental absorption of CaS. These absorption spectra will be discussed in detail elsewhere. It is concluded that cathode sputtering can be employed to obtain CaS films suitable for investigation of the fundamental absorption, and it is suggested that the present technique may be successfully employed to obtain thin films of other IIA-IVB compounds. Orig. art. has: 3 figures.

SUB CODE: 20/

SUEM DATE: 09/

ORIG REF: 003/

OTH REF: 002

Card 2/2

SPIVAK, G.V.; LUK'YANOV, A.Ye.; TOSHEV, S.D.; KOPTSIK, V.A.

Observation of the domain structure of triglycine sulfate by
means of an electron mirror. Izv. AN SSSR. Ser. fiz. 27
no.9:1199-1202 S '63. (MIRA 16:9)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta
im.M.V.Lomonosova.
(Glycine) (Domain structure)
(Electronic apparatus and appliances)

L 19562-65 EMT(1)/EMT(m)/T/EMP(t)/EEC(b)-2/EED-2/EMP(b) - Pa-4c)/AEDG(a)/SSD/BSD/
AFML/ASD(a)-5/AS(mp)-2/AFTC(p)/ESD(t)/IJP(c) JD S/0048/64/028/008/1382/1386
ACCESSION NR: AP4044658

AUTHOR: Spivak, G.V.; Luk'yanov, A.Ye.; Abalmazova, M.G.

B

TITLE: Observation of local contaminant films by means of a mirror electron microscope Report, 11th All-Union Conference on Cathode Electronics held in Kiev, 11-18 Nov 1963

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v.28, no.8, '64, 1382-1386

TOPIC TAGS: electron emission, electron microscopy, contamination, vacuum system

ABSTRACT: The present study is one of an extensive series of investigations by the authors' group of emitter surfaces, microfields, p-n junctions and so on, by means of electron microscopy. The aim of the present work was direct visualization of local deposits consisting of contaminant films of the type that form in vacuum systems with an electron beam by means of a mirror electron microscope. A common feature of electron mirror images are dark spots, which, it has been found, may represent dust particles or other protrusions on the specimen, local variations of the contact difference of (patch fields), local oxide films, other films of various contaminants (remaining on the surface owing to inadequate cleaning of the specimen) or films

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L 19562-65

ACCESSION NR: AP4044658

settling on the specimen surface in the vacuum installation (oil, vacuum grease, rubber vapor and other organic substance films). Thus, the purpose of the present study was to distinguish and investigate films of the last two types (the first two types can readily be identified for they do not disappear as a result of heating the specimen to 200-300°C). Several micrographs of typical contaminant films (spots) are reproduced. Some of their features are discussed. The results obtained indicate that it is feasible by means of an electron mirror microscope to detect and identify dielectric films only a few Angstroms thick and that the sensitivity of the electron mirror procedure is not inferior to that of the method of post-charge emission described by P.N.Chistyakov (Zhur.tekh.fiz.33,1395,1963). Orig.art.has: 5 figures.

ASSOCIATION: Fizicheskiy fakultet Moskovskogo gosudarstvennogo universiteta (Physics Department, Moscow State University)

SUBMITTED: OO

ENCL: OO

SUB CODE: EC, ME

MR. REF. SOV: 005

OTHER: 008

2/2

SPIVAK, G. V.; SHISHKIN, B. B.; LUKYANOV, A. Ye.; MISHURINA, K. A.

"Uber das quantitative Studium der Emitter mittels eines Hochvakuum-Emissionsmikroskopes."

report submitted for 3rd European Regional Conf, Electron Microscopy, Prague,
26 Aug-3 Sep 64.

SPIVAK, G.V.; LUK'YANOV, A.Ye.; ABALMAZOVA, M.G.

Observation of local films of contamination in a mirror electron microscope. Izv. AN SSSR. Ser. fiz. 28 no.8:1382-1386 Ag ¹⁶⁴
(MIRA 17:8)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6

LUK'YANOV, B.; CHUMAKOV, V.

Defense against contamination from an atomic explosion.
Voen. znan. 34 no.9:29 S '58. (MIRA 11:10)
(Atomic bomb--Safety measures)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6"

KOKH, Boris Fedorovich; LUK'YANOV, B.; ROMANOV, A.; NOVOKHATKO, V.,
red.

[Man steps into outer space] Chelovek shagaet v kosmos. Mo-
skva, Politizdat, 1965. 63 p. (MIRA 18:3)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6

LUK'YANOV, Boris Borisovich; REUT, V.F., red.

[*"Grandfather of Russian aviation"*] "Dedushka russkoi
aviatsii." Moskva, Znanie, 1965. 124 p. (MIRA 18:4)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6"

L 31/2-66 EWT(1)/FS(v)-3 DD

AM5022165

BOOK EXPLOITATION

UR/

84

37

B+1

Luk'yanov, Boris Borisovich (TASS Correspondent)

We believe, friends, in caravans of rockets (My verim, druz'ya karavany raket...)[Moscow] "Molodaya gvardiya", 1965, 270 p. photos. 77,000 copies printed.

TOPIC TAGS: astronautic personnel, astronaut training

PURPOSE AND COVERAGE: The book is intended for youth aspiring to become or imitate astronauts. The book deals with the making of an astronaut, including physical and moral qualities and testing and training procedures, and gives short biographies of the known Soviet astronauts.

TABLE OF CONTENTS:

1. To the young friends of the astronauts [introduction] -- 5
2. The stars await them [sports, physical training, selection of pilots described by Ye. A. Petrov, medical doctor and supervisor of astronauts] -- 9

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AM5022165

- 0
3. Difficult training means easy flight [various training devices and practices] -- 25
 4. Komsomol hearts [moral characteristics of known astronauts] -- 53
 5. On different orbits [American space program and astronauts, U.S. press concerning Soviet astronauts] -- 81
 6. Communists assault space [astronauts are party members] -- 128
 7. Fifth captain of the Vostok [short biography of V. Bykovskiy] -- 148
 8. Mistress of space [short biography of V. Tereshkova] -- 170
 9. Crownning a heroic deed [Tereshkova in Moscow and abroad] -- 206
 10. Wedding of the Seagull and Hawk [Tereshkova's marriage to Nikolayev] -- 228

Card 2/3

L 3142-66
AM5022165

11. Heroes of the Earth and heroes of space [Gagarin visits
Siberia] -- 244

12. Accept, friends, new reinforcement! [Komarov, Feoktistov,
and Yegorov] -- 261

SUB CODE: PH, SV SUBMITTED: 20Apr65 NO REF Sov: 000

OTHER: 000

Card 3/3

LUK'YANOV, B. G.

"Investigation of the Operation of Packed Rectifying Columns." Thesis for degree of Cand. Technical Sci. Sub 28 Jun 50, Moscow Order of Lenin Chemicotechnological Inst. imeni D. I. Mendeleev

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernaya Moskva, Jan-Dec 1950.

KASATKIN, A.G., doktor tekhnicheskikh nauk, professor; DYTNERSKIY, Yu.I.,
kand.tekhn.nauk, dotsent; LUK'YANOV, B.G., kand.tekhn.nauk,
assistant

Reply to the S.M. Volok's letter. Izv.vys.ucheb.zav.; khim.i
khim.tekh. 3 no.2:387-388 '60. (MIRA 14:6)

1. Zaveduyushchiy kafedroy protsessov i apparatov khimicheskoy
promyshlennosti Moskovskogo khimiko-tehnologicheskogo instituta
imeni D. I. Mendeleyava (for Kasatkin).
(Plate towers)

KAFAROV, V.V.; LUK'YANOV, B.G.; MURAV'YEV, V.S.

Hydrodynamic conditions for packed rectification columns. Izv.
vys.ucheb.zav; khim.i khim.tekh. 4 no.5:854-858 '61. (MIRA 14:11)

1. Moskovskiy khimiko-tehnologicheskiy institut imeni Mendeleyeva,
kafedra protsessov i apparatov khimicheskoy tekhnologii.
(Packed towers)

KAFAROV, V.V.; MURAV'YEV, V.S.; LUK'YANOV, B.G.

Resistance of packed rectifying columns. Izv.vys.ucheb.zav.; khim.
i khim.tekh. 4 no.6:1026-1029 '61. (MIRA 15:3)

l. Moskovskiy khimiko-tehnologicheskiy institut imeni Mendeleyeva,
kafedra protsessov i apparatov.
(Packed towers)

DYTNERSKIY, Yu.I., kand.tekhn.nauk; BORISOV, G.S., inzh.; LUK'YANOV, B.G., kand.
tekhn.nauk; MUZMAN, S.Z., inzh.

Determining the speeds of flooding in columns with regular packing.
Khim.mashinostr. no.6:18-19 N-D '63. (MIRA 17:2)

MURAV'YEV, V.S.; KAFAROV, V.V.; LUK'YANOV, B.G.

Interaction energy in two-phase flows in packed columns. Izv.vys.-
ucheb.zav.;khim.i khim.tekh. 6 no.1:155-159 '63. (MIRA 16:6)

1. Moskovskiy khimiko-tehnologicheskiy institut imeni Mendeleyeva,
kafedra avtomatizatsii khimicheskikh proizvodstv.
(Packed towers) (Gas flow)

LUK'YANOV, B. I.

MARUSOV, A.Ya., inzhener-podpolkovnik, glavnnyy red.; KUDRYAVTSEV, M.K., general-leytenant tekhnicheskikh voysk, otvetstvennyy red.; DEMIN, L.A., inzhener-kontr-admiral, red.; SHCHEBRAKOV, A.N., general-mayor, red.; NIKOLAYEV, A.S., polkovnik, red.; KOLOMIETS, A.D., polkovnik, red.; NAZAROV, P.V., polkovnik, red.; PAROT'KIN, I.V., polkovnik, red.; PUDIKOV, M.P., polkovnik, red.; SISELIN, S.V., polkovnik, red.; BARANOV, M.Kh., inzhener-polkovnik, red.; KOMKOV, A.M., inzhener-polkovnik, red.; SHATUNOV, S.G., inzhener-polkovnik, red.; KOROLEV, V.G., polkovnik, tekhn. red.; LUK'YANOV, B.I., polkovnik, tekhn.red.; ROMANOV, M.K., podpolkovnik, tekhn.red.; IVANOV, V.V., inzhener-podpolkovnik, tekhn.red.; LYUBKOV, A.N., inzhener-podpolkovnik, tekhn.red.; KNYSH, P.N., podpolkovnik tekhnicheskoy sluzhby, tekhn.red.; VASMUT, A.S., kapitan, tekhn. red.; KOSTIN, A.G., tekhn.red.; MAKUKHINA, G.P., tekhn.red.

[World atlas] Atlas mira. Moskva, Voen.izd-vo M-va obor. SSSR,
1958. 459 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Armiya. General'nyy shtab. Voyenno-topograficheskoye upravleniye. 2. Tekhnicheskaya redaktsiya
Voyenno-topograficheskogo upravleniya General'nogo Shtaba (for
Korolev, Luk'yanov, Romanov, Ivanov, Lyubkov, Knysh, Vasmut)
(Atlases)

SOV/124-59-10-12626

Translation from: Referativnyy zhurnal, Mekhanika, 1959, No. 10, p. 202 (USSR)

AUTHOR: Luk'yanov, B. M.

TITLE: On the Calculation of a Drum of Special Aircraft Winches

PERIODICAL: Tr. Kazansk. aviats. in-ta, 1958, Vol. 43, pp. 33-41

TEXT: The rigorous determination of the stress in the shell and rim of a drum arising from the rope tension is difficult because the bobbin of the rope represents an anisotropic body, and elastic coefficients in different directions are not known. An experimental verification of the formulae obtained by B. S. Koval'skiy (Dokl. AS USSR, 1950, Vol. 54, No. 3) was carried out, and a good coincidence of the theoretical and experimental data was found out. The formulae for determining the axial load on the drum rims were derived assuming the load to be axisymmetrical, and an experimental check was performed; the coincidence of the theoretical and experimental results is shown within the rope elastic coefficient values ω ranging from 10 to 12. There are 3 references.

N. P. Beresnev

Card 1/1

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LUK'YANOV, B.M.

Designing high-pressure vessels. Izv. vys. ucheb. zav.; av.tekh.
2 no.1:125-133 '59. (MIRA 12:3)

1.Kazanskiy aviatcionnyy institut, Kafedra detaley mashin.
(Pressure vessels)

LUK'YANOV, B. M.

Cand Tech Sci - (diss) "Design of lighted cylinders and winches with multi-layer winding." Kazan', 1961. 9 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Kazan' Chemical Technology Inst imeni S. M. Kirov); 150 copies; price not given; (KL, 7-61 sup, 240)

LUK'YANOV, B.M.

Determining the modulus of lateral compression of aircraft cables.
Trudy KAI 72:25-36 '62. (MIRA 16:8)
(Wire rope—Testing)

LUK'YANOV, B. N.

Lithuania - forests and forestry

Dissemination of information on forestry among collective forest farms of the
Lithuanian Soviet Socialist Republic. Les. khoz. 5 No. (43), 1952.

2

9. Monthly List of Russian Accessions, Library of Congress, August 1953, Uncl.

GRIGOR'IEV, Vasiliy Prokhorovich, prof., doktor tekhn.nauk; LUK'YANOV, B.V.,
dots., kand.tekhn.nauk, retsenzent; GORBUNOV, M.N., dots., kand.tekhn.
nauk, retsenzent; KRASIL'NIKOV, S.D., inzh., red.; ANIKINA,
M.S., izdat.red.; GARNUKHINA, L.A., tekhn.red.

[Technology of airplane manufacture] Tekhnologija samoleto-
stroenija. Moskva, Gos.izd-vo obor.promyshl., 1960. 542 p.
(MIRA 13:2)

1. Moskovskiy aviatcionnyy tekhnologicheskiy institut (for
Luk'yanov, Gorbunov).
(Airplanes--Design and construction)

LUK'YANOV, D.I., inzhener; MATVEYEV, L.M., inzhener.

Experiment of work on drainage fields with UPF machines. Torf. prom. 30
no.5:8-10 My '53.
(MLRA 6:5)

1. Gor'kovskiy torfotrest. 2. Chistoye-Borskoye torfopredpriyatiye.
(Peat industry)

LUK'YANOV D.I.
LUK'YANOV, D.I., inzh.

Modification of the lubricating system of the HP-1200 peat
dike miller. Torf.prom. 34 no.8:31-32 '57. (MIRA 11:1)

1. Chistoye-Borskoye torfopredpriyatiye.
(Peat machinery)

LUK'YANOV, D.L., inzh.; ANDREYEV, A.V., inzh.

The PK-P one-pass sole-rolling machine. Izv.vys.ucheb.zav.; tekhn.
(MIRA 12:2)
leg.prom. no.5:140-150 '58.

1. Spetsial'noye konstruktorskoye byuro po proyektirovaniyu kozhe-
vennykh i obuvnykh mashin Leningradskogo sovnarkhoza.
(Leather industry--Equipment and supplies)

LUK'YANOV, D.I.

Unit for shaping, tightening, and adjusting shoe bottoms.
Biul.tekh.-ekon.inform. no.5:58-59 '59. (MIRA 12:8)
(Shoe machinery)

LUK'YANOV, D.L.

The MSh-1500-type machine for polishing chrome-tanned pig skins.
Biul.tekh.-ekon.inform. no.12:48-49 '59. (MIRA 13:4)
(Leather--Machinery)

LUK'YANOV, D. L.

The ZDK machine for the leather and shoe industry. Biul.
tekhn.-ekon.inform. no.7:43-44 '60. (MIRA 13:7)
(Leather industry--Equipment and supplies)
(Shoe machinery)

LUK'YANOV, D. L.

Automatic lines for the manufacture of shoes. Biul.tekh.-ekon.
inform. no.8:47-48 '60. (MIRA 13:9)
(Shoe machinery)

LUK'YANOV, D.L.

The AFPS, ABS semiautomatic shoe machines and the MVIU shoe machine.
Biul.tekh.-ekon.inform.no.9:46-49 '60. (MIRA 13:10)
(Shoe machinery)

LUK'YANOV, D. L.

The MNP machine for fastening welt soles. Biul.tekh.-ekon.inform.
no.11:45-46 '60. (MIRA 13:11)
(Shoe machinery)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6

LUK'YANOV, D.L.

The REM-P drum scouring machine. Biul. tekhn.-ekon. inform. no. 4:47-
49 '61.
(Shoe machinery)

(MIRA 14:5)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001030820010-6"

LUK'YANOV, D.L.

The PKD semiautomatic machine for assembling bootees. Biul.
tekh.-ekon.inform. no.6:54-56 '61. (MIRA 14:6)
(Shoe machinery)

LUK'YANOV, D.L.

The IL photoelectric machine for measuring areas of patterns.
Biul.tekh.-ekon.inform. no.8:61-62 '61.
(Photoelectric measurements) (MIRA 14:8)

LUK'YANOV, D.L.

The FGI-0 and UDN shoe machines. Biul.tekh.-ekon.inform.Gos.-
nauch.-issl.inst.nauch.i tekh.inform. no.3:38-40 '62.

(MIRA 15:5)

(Shoe machinery)

LUK'YANOV, D.L.

The APS-5, OGP-0 and ZMK machines for the shoe industry. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.4:57-61 '62.
(MIRA 15:7)
(Shoe machinery)

LUK'YANOV, D.L.

The PNG-18-0 hydraulic cutting press. Biul.tekh.-ekon.inform,-
Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.6:60-61 '62.
(MIRA 15:7)
(Hydraulic presses)

LUK'YANOV, D.L.

The PKE-O and NPS presses for gluing soles to footwear. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.8:55-58 '62.
(MIRA 15:7)
(Shoe machinery)

LUK'YANOV, D.L.

The PZF-0, NK-0, OZ-0 machines for shoe manufacture.
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(Shoe machinery)

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AUTHOR: Luk'yanov, D. P.

ORG: none

TITLE: A method for measuring constant and pulsed high voltages. Class 21, No. 176962 [announced by the Red Banner Leningrad Military Engineering Academy im. V. F. Mozhayskiy (Leningradskaya voyennaya inzhenernaya krasnoznamennaya akademiya)]

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TOPIC TAGS: measuring instrument, phase meter, phase measurement, measurable function, measurement accuracy

ABSTRACT: This Author Certificate presents a method of measuring constant and pulsed high voltages. The method is intended to increase the measurement precision and to reduce the high voltage measuring process to the measurement of linear values. The voltage being measured is fed to the accelerating electrode of a transit type amplifier. Then, by measuring the frequency of the amplifier excitation oscillations, the phase increment is determined. This phase increment, which corresponds to the parameter being varied, is determined with the aid of a phase meter circuit.

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negligible. Curves given relating surface potential (for petroleum products and other liquids) to height of liquid in vessel, showing that explosion risk is at max towards end of filling. Hence pumping rate should be reduced when tank is 75% full. As well as being earthed, tanks should be bonded to filling hose. This is reduced by filling several tanks simultaneously. V.B.

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